

What is claimed is:

1. A radiation image storage panel having a rectangular shape, comprising a transparent substrate and a stimulable phosphor layer overlaid on a front surface side of the transparent substrate,

wherein the shape of the radiation image storage panel is asymmetric with respect to a center axis of the radiation image storage panel, which center axis extends in an antero-posterior direction of the radiation image storage panel.

2. A radiation image storage panel as defined in Claim 1 wherein a shape of one corner area, which is among four corner areas of the radiation image storage panel, is different from shapes of the other three corner areas.

3. A radiation image storage panel as defined in Claim 1 wherein shapes of two corner areas, which are among four corner areas of the radiation image storage panel and which are located on one of two diagonal lines, are identical with each other and are different from shapes of the other two corner areas, which are located on the other diagonal line.

4. A radiation image storage panel as defined in Claim 1 wherein one of a cutaway region, a projecting region, and a hole is formed only at one corner area, which is among four corner areas of the radiation image storage panel, or in the vicinity of the one corner area.

5. A radiation image storage panel as defined in Claim 1 wherein one of a cutaway region, a projecting region, and a

hole is formed only at each of two corner areas, which are among four corner areas of the radiation image storage panel and which are located on one of two diagonal lines, or in the vicinity of each of the two corner areas.

5           6. A radiation image storage panel having a rectangular shape, comprising a transparent substrate and a stimulable phosphor layer overlaid on a front surface side of the transparent substrate,

10           wherein a colored region is formed on only either one of a front surface and a back surface of the radiation image storage panel.

15           7. A radiation image storage panel having a rectangular shape, comprising a transparent substrate and a stimulable phosphor layer overlaid on a front surface side of the transparent substrate,

          wherein a colored region is formed on each of a front surface and a back surface of the radiation image storage panel, and

20           the colored region formed on the front surface of the radiation image storage panel and the colored region formed on the back surface of the radiation image storage panel differ from each other in position, shape, and/or color.

25           8. A radiation image storage panel as defined in Claim 6 or 7 wherein the colored region, which is formed on the front surface of the radiation image storage panel, has a color other than colors, which are capable of absorbing stimulating rays

irradiated to the radiation image storage panel and light emitted from the radiation image storage panel when the radiation image storage panel is exposed to the stimulating rays.

9. A radiation image storage panel as defined in Claim 6 or 7 wherein the colored region, which is formed on the back surface of the radiation image storage panel, has a color other than colors, which are capable of absorbing light emitted from the radiation image storage panel when the radiation image storage panel is exposed to stimulating rays.

10. A radiation image storage panel having a rectangular shape, comprising a transparent substrate and a stimuable phosphor layer overlaid on a front surface side of the transparent substrate,

wherein the radiation image storage panel is provided with a specific shape region which acts such that a shape on a front surface of the radiation image storage panel and a shape on a back surface of the radiation image storage panel differ from each other.

11. A cassette, comprising an accommodating section for accommodating a radiation image storage panel as defined in Claim 1,

wherein the accommodating section has a shape such that, due to the asymmetric shape of the radiation image storage panel, the radiation image storage panel is prevented from being accommodated in the accommodating section with a front surface and a back surface of the radiation image storage panel being

reversed.

12. A cassette, comprising an accommodating section for accommodating a radiation image storage panel as defined in Claim 10,

5 wherein the accommodating section has a shape such that, due to the specific shape region of the radiation image storage panel, the radiation image storage panel is prevented from being accommodated in the accommodating section with the front surface and the back surface of the radiation image storage panel being reversed.

10 13. A cassette, comprising an accommodating section for accommodating a radiation image storage panel, which radiation image storage panel comprises a transparent substrate and a stimuable phosphor layer overlaid on a front surface side of the transparent substrate,

15 wherein the cassette is separated into a cassette main body and a cassette sub-body,

the radiation image storage panel is secured to the cassette sub-body, and

20 the shape of the cassette sub-body, which shape is taken with respect to the radiation image storage panel, varies between when the radiation image storage panel is located with a front surface of the radiation image storage panel facing up and when the radiation image storage panel is located with a back surface of the radiation image storage panel facing up.